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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BARTON, JEFFREY THOMAS

ART UNIT PAPER NUMBER

1753

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/845,784

Applicant(s)

ALLY ET AL.

Examiner

Jeffrey T. Barton

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20010629.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. This application filed under former 37 CFR 1.60 lacks the necessary reference to the prior application. A statement reading "This is a continuation of Application No. 09/154,156, filed on September 16, 1998, which claims benefit of Provisional Application No. 60/059,031, filed on September 16, 1997." should be entered following the title of the invention or as the first sentence of the specification. Also, the current status of all nonprovisional parent applications referenced should be included.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 10 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "said receiving lips" in lines 4 and 5. There is insufficient antecedent basis for this limitation in the claim. The claim is treated herein as though the limitation "for slidably receiving therein said receiving lips." was omitted.

Claim 12 recites the limitation "said receptacles" in line 1. This limitation is unclear because two sets of receptacles are described in the preceding claim (Claim 11, lines 2 and 3), and no guidance is given as to which set is intended by this limitation.

The claim is treated herein as though the limitation read, "said second set of receptacles", based on the language of dependent claim 13.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3, 4, 6, and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Gombocz et al.

Relevant to claim 1, Gombocz et al disclose an adaptor (Figure 6, 150) useful for transferring multiple fluid samples (162) from a first set of receptacles (154) spaced apart by a first spacing (Figure 7) to a second set of receptacles (126) spaced apart by a second spacing (Figure 7), comprising: a body (152), said body defining a first set of apertures spaced apart by the first spacing (154; Figure 7), a second set of apertures (below 158) spaced apart by the second spacing, and channels within the body (158) connecting the two sets of apertures.

Relevant to claim 3, Gombocz et al disclose an adaptor further comprising a lip coupled to the second end of the body (Narrow section with passage 158), with the second set of apertures disposed in the lip.

Relevant to claim 4, Gombocz et al disclose one receiving lip coupled to the second end of the body. (Narrow section with passage 158)

Relevant to claim 6, Gombocz et al disclose the second set of apertures being evenly spaced. (Figure 7)

Relevant to claim 8, Gombocz et al disclose a means coupled to the body for stabilizing and aligning the body over the horizontal gel. (Gel plate 100, itself)

Relevant to claim 9, Gombocz et al disclose the gel plate (base) having a body with a back (opposite the gel-bearing surface), two sides (left and right edges), and two horizontal support members (116 and 116a run horizontally across the back)

Relevant to claim 10, Gombocz et al disclose the base (gel plate 100) comprising angled ledges extending downwards and outwards from said back. (116 and 116a)

6. Claims 1, 2, 6, 8, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Cabilly et al.

Relevant to claim 1, Cabilly et al disclose an adaptor (Figure 3, cover 16) useful for transferring multiple fluid samples from a first set of receptacles spaced apart by a first spacing to a second set of receptacles (36) spaced apart by a second spacing, comprising: a body (16), said body defining a first set of apertures spaced apart by the first spacing (Top surface of 16, holes 38), a second set of apertures (Bottom surface of

16, holes 38) spaced apart by the second spacing, and channels within the body connecting the two sets of apertures.

Relevant to claim 2, Cabilly et al disclose the body being made of plastic.
(Column 5, lines 33-38)

Relevant to claim 6, Cabilly et al disclose the second set of apertures being evenly spaced. (Figure 3)

Relevant to claim 8, Cabilly et al disclose a means coupled to the body for stabilizing and aligning the body over the horizontal gel. (Figure 3, chamber 11)

Relevant to claim 9, Cabilly et al disclose the cassette chamber (base) having a body with a back (12), two sides, and two horizontal support members (Walls 14 fulfill both functions)

7. Claims 1, 3, 4, 6, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Nguyen et al.

Relevant to claim 1, Nguyen et al disclose an adaptor (Figures 1 and 2) useful for transferring multiple fluid samples from a first set of receptacles spaced apart by a first spacing to a second set of receptacles (wells in gel) spaced apart by a second spacing, comprising: a body (11), said body defining a first set of apertures spaced apart by the first spacing (Top surface of 11, between partitions 17), a second set of apertures (Bottom surface of 11, between partitions 17) spaced apart by the second spacing, and channels within the body connecting the two sets of apertures.

Relevant to claim 3, Nguyen et al disclose an adaptor further comprising a lip coupled to the second end of the body (24, notch 26), with the second set of apertures disposed in the lip.

Relevant to claim 4, Nguyen et al disclose one receiving lip coupled to the second end of the body. (24, notch 26)

Relevant to claim 6, Nguyen et al disclose the second set of apertures being evenly spaced. (Figures 1, 3-5)

Relevant to claim 8, Nguyen et al disclose a means coupled to the body for stabilizing and aligning the body over the horizontal gel. (Gel enclosure 12)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 2, 5, and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Gombocz et al.

Gombocz et al disclose an adaptor as described above in addressing claim 1.

Gombocz et al do not explicitly disclose the adaptor being made of plastic (Claim 2), the second spacing being different from the first spacing (Claim 5), or the second set of apertures being unevenly spaced. (Claim 7)

Addressing claim 2, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the adaptor of Gombocz et al from plastic, because molding this shape would be the easiest way of producing it, and using plastic would prevent short-circuiting of the device.

Addressing claim 5, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct this adaptor with a first spacing different from the second spacing, because a larger first spacing would allow production of larger-volume receptacles (154), which could be useful in the case of extremely dilute samples or miniaturized gel plate.

Addressing claim 7, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct this adaptor with an unevenly spaced second set of apertures, because the spacing is determined by the spacing of the gel channels. (Figure 7) In a case where the spacing of the channels is uneven (e.g. anticipating different sample sizes or separation conditions), it would be obvious to provide an adaptor with matching spacing.

12. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al in view of Sarrine et al. (US 4,827,780)

Nguyen et al disclose an assembly (Figures 1 and 2) useful for transferring multiple fluid samples from a first set of receptacles spaced apart by a first spacing to a second set of receptacles (wells in gel) spaced apart by a second spacing, comprising: a body (11), said body defining a first set of apertures spaced apart by the first spacing (Top surface of 11, between partitions 17), a second set of apertures (Bottom surface of 11, between partitions 17) spaced apart by the second spacing, and channels within the body connecting the two sets of apertures. Nguyen et al also disclose their device to be useful in guiding syringe needles.

Relevant to claims 12 and 13, Nguyen et al disclose the second receptacles being wells in an electrophoresis gel. (Abstract)

Relevant to claim 15, Nguyen et al disclose a base coupled to the body for stabilizing and aligning the body over a vertical gel. (Gel enclosure 12)

Nguyen et al do not explicitly disclose the assembly also comprising gel-loading pipette tips inserted into the channels.

Sarrine et al disclose a multi-channel, automatic pipettor suitable for applying samples to an electrophoresis gel. (See Background section) This pipettor dispenses fluids through tips (Figure 7; 93) that can be positioned automatically.

It would have been obvious to one having ordinary skill in the art to modify the assembly of Nguyen et al by using the automatic pipettor of Sarrine et al to dispense the samples to the chambers, because it would simplify the analysis of a series of samples through increased automation.

13. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gombocz et al in view of Sarrine et al. (US 4,827,780)

Gombocz et al disclose an adaptor (Figure 6, 150) useful for transferring multiple fluid samples (162) from a first set of receptacles (154) spaced apart by a first spacing (Figure 7) to a second set of receptacles (126) spaced apart by a second spacing (Figure 7), comprising: a body (152), said body defining a first set of apertures spaced apart by the first spacing (154; Figure 7), a second set of apertures (below 158) spaced

apart by the second spacing, and channels within the body (158) connecting the two sets of apertures.

Relevant to claims 12 and 13, Gombocz et al disclose the second receptacles being wells in an electrophoresis gel. (Figure 7)

Relevant to claim 15, Gombocz et al disclose a base coupled to the body for stabilizing and aligning the body over a horizontal gel. (Gel plate 100)

Gombocz et al do not explicitly disclose the assembly also comprising gel-loading pipette tips inserted into the channels.

Sarrine et al disclose a multi-channel, automatic pipettor suitable for applying samples to an electrophoresis gel. (See Background section) This pipettor dispenses fluids through tips (Figure 7; 93) that can be positioned automatically.

It would have been obvious to one having ordinary skill in the art to modify the assembly of Nguyen et al by using the automatic pipettor of Sarrine et al to dispense the samples to the chambers, because it would simplify the analysis of a series of samples through increased automation.

Double Patenting

14. Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6,231,813 in view of Nguyen et al.

Claim 1 of U.S. Patent No. 6,231,813 claims an adaptor useful for transferring multiple fluid samples from a first set of receptacles to a second set of receptacles,

comprising: a body, said body defining a first set of apertures at one end of said body, said first set of apertures spaced apart by a first spacing, a second set of apertures at a second end of said body remote from said first end, said second set of apertures spaced apart by a second spacing, wherein said second spacing is different than said first spacing, and channels within said body connecting said first set of apertures with said second set of apertures.

Claim 2 of the instant application is exactly the same as claim 2 of U.S. Patent No. 6,231,813.

Claims 3 and 4 of the instant application provide no limitations patently distinguishable from claims 3 and 4 of U.S. Patent No. 6,231,813. The functions of the lips would be entirely equivalent.

Claim 5 of the instant application contains only a limitation that was included in claim 1 of U.S. Patent No. 6,231,813 at column 9, lines 18-19.

Claims 6-9 of the instant application are exactly the same as claims 5-8 of U.S. Patent No. 6,231,813.

Claim 10 of the instant application recites the same limitations with the same functions as those listed in claim 9 of U.S. Patent No. 6,231,813.

Claim 1 of U.S. Patent No. 6,231,813 does not allow for the first spacing to equal the second spacing.

Nguyen et al disclose an adaptor useful for transferring fluids from one set of receptacles to another, with similar design and construction, in which the first spacing and the second spacing are equal.

It would have been obvious to modify the spacer of Claim 1 of U.S. Patent No. 6,231,813 by providing equal spacing to the first set of apertures and second set of apertures, as taught by Nguyen et al, because it would allow convenient sample loading in cases where the well spacing in the gel was the same as the well spacing on a standard microtiter plate. (i.e. 9 mm)

15. Claims 11-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-13 of U.S. Patent No. 6,231,813 in view of Nguyen et al.

Claim 10 of U.S. Patent No. 6,231,813 claims an assembly useful for transferring multiple fluid samples from a first set of receptacles to a second set of receptacles, comprising: a body, said body defining a first set of apertures at one end of said body, said first set of apertures spaced apart by a first spacing, a second set of apertures at a second end of said body remote from said first end, said second set of apertures spaced apart by a second spacing, wherein said second spacing is different than said first spacing, and channels within said body connecting said first set of apertures with said second set of apertures; and gel-loading pipette tips inserted into said channels.

Claim 11 of U.S. Patent No. 6,231,813 claims the same destination for the fluid transfer as Claim 12 of the instant application.

Claims 12 and 13 of U.S. Patent No. 6,231,813 are identical to claims 13 and 14 of the instant application.

Claim 11 of U.S. Patent No. 6,231,813 does not allow for the first spacing to equal the second spacing.

Nguyen et al disclose an adaptor useful for transferring fluids from one set of receptacles to another, with similar design and construction, in which the first spacing and the second spacing are equal.

It would have been obvious to modify the assembly of Claim 10 of U.S. Patent No. 6,231,813 by providing equal spacing to the first set of apertures and second set of apertures, as taught by Nguyen et al, because it would allow convenient sample loading in cases where the well spacing in the gel was the same as the well spacing on a standard microtiter plate. (i.e. 9 mm)

16. Claims 15 and 16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14 and 15 of U.S. Patent No. 6,231,813 in view of Nguyen et al.

Claim 14 of U.S. Patent No. 6,231,813 claims an assembly useful for transferring multiple fluid samples from a first set of receptacles to a second set of receptacles, comprising: a body, said body defining a first set of apertures at one end of said body, said first set of apertures spaced apart by a first spacing, a second set of apertures at a second end of said body remote from said first end, said second set of apertures spaced apart by a second spacing, wherein said second spacing is different than said first spacing, and channels within said body connecting said first set of apertures with said second set of apertures; a base coupled to said body for stabilizing and aligning

Art Unit: 1753

said body over a vertical, substantially vertical, horizontal, or substantially horizontal gel; and gel-loading pipette tips inserted into said channels.

Claim 15 of U.S. Patent No. 6,231,813 is identical to claim 16 of the instant application.

Claim 14 of U.S. Patent No. 6,231,813 does not allow for the first spacing to equal the second spacing.

Nguyen et al disclose an adaptor useful for transferring fluids from one set of receptacles to another, with similar design and construction, in which the first spacing and the second spacing are equal.

It would have been obvious to modify the spacer of Claim 14 of U.S. Patent No. 6,231,813 by providing equal spacing to the first set of apertures and second set of apertures, as taught by Nguyen et al, because it would allow convenient sample loading in cases where the well spacing in the gel was the same as the well spacing on a standard microtiter plate. (i.e. 9 mm)

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jeffrey Barton, whose telephone number is (571) 272-1307. The examiner can normally be reached Monday-Friday from 8:30 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached at (571) 272-1342. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

JTB
September 23, 2004



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